



## SEQUENCE LISTING

Pier, Gerald B.

<120> Methods and Products for Treating  
Pseudomonas Infection

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&lt;160&gt; 4

&lt;170&gt; FastSEQ for Windows Version 3.0

&lt;210&gt; 1

&lt;211&gt; 6129

&lt;212&gt; DNA

&lt;213&gt; Homo Sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (133)...(4575)

&lt;400&gt; 1

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60  
120  
171

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219

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267

gct gac aat cta tct gaa aaa ttg gaa aga gaa tgg gat aga gag ctg  
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315

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363

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411

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95 100 105

459

gac ccg gat aac aag gag gaa cgc tct atc gcg att tat cta ggc ata Asp Pro Asp Asn Lys Glu Glu Arg Ser Ile Ala Ile Tyr Leu Gly Ile 110 115 120 125	507
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Val Thr Arg Gln Phe Pro Trp Ala Val Gln Thr Trp Tyr Asp Ser Leu			
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Gly Ala Ile Asn Lys Ile Gln Asp Phe Leu Gln Lys Gln Glu Tyr Lys			
370	375	380	
aca ttg gaa tat aac tta acg act aca gaa gta gtg atg gag aat gta			1323
Thr Leu Glu Tyr Asn Leu Thr Thr Glu Val Val Met Glu Asn Val			
385	390	395	
aca gcc ttc tgg gag gag gga ttt ggg gaa tta ttt gag aaa gca aaa			1371
Thr Ala Phe Trp Glu Glu Gly Phe Gly Glu Leu Phe Glu Lys Ala Lys			
400	405	410	
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Gln Asn Asn Asn Arg Lys Thr Ser Asn Gly Asp Asp Ser Leu Phe			
415	420	425	
ttc agt aat ttc tca ctt ctt ggt act cct gtc ctg aaa gat att aat			1467
Phe Ser Asn Phe Ser Leu Leu Gly Thr Pro Val Leu Lys Asp Ile Asn			
430	435	440	445
ttc aag ata gaa aga gga cag ttg ttg gcg gtt gct gga tcc act gga			1515
Phe Lys Ile Glu Arg Gly Gln Leu Leu Ala Val Ala Gly Ser Thr Gly			
450	455	460	
gca ggc aag act tca ctt cta atg atg att atg gga gaa ctg gag cct			1563
Ala Gly Lys Thr Ser Leu Leu Met Met Ile Met Gly Glu Leu Glu Pro			
465	470	475	
tca gag ggt aaa att aag cac agt gga aga att tca ttc tgt tct cag			1611
Ser Glu Gly Lys Ile Lys His Ser Gly Arg Ile Ser Phe Cys Ser Gln			
480	485	490	
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Phe Ser Trp Ile Met Pro Gly Thr Ile Lys Glu Asn Ile Ile Phe Gly			
495	500	505	
gtt tcc tat gat gaa tat aga tac aga agc gtc atc aaa gca tgc caa			1707
Val Ser Tyr Asp Glu Tyr Arg Tyr Arg Ser Val Ile Lys Ala Cys Gln			
510	515	520	525
cta gaa gag gac atc tcc aag ttt gca gag aaa gac aat ata gtt ctt			1755
Leu Glu Glu Asp Ile Ser Lys Phe Ala Glu Lys Asp Asn Ile Val Leu			
530	535	540	
gga gaa ggt gga atc aca ctg agt gga ggt caa cga gca aga att tct			1803
Gly Glu Gly Gly Ile Thr Leu Ser Gly Gly Gln Arg Ala Arg Ile Ser			
545	550	555	
tta gca aga gca gta tac aaa gat gct gat ttg tat tta tta gac tct			1851
Leu Ala Arg Ala Val Tyr Lys Asp Ala Asp Leu Tyr Leu Leu Asp Ser			
560	565	570	
cct ttt gga tac cta gat gtt tta aca gaa aaa gaa ata ttt gaa agc			1899

Pro Phe Gly Tyr Leu Asp Val Leu Thr Glu Lys Glu Ile Phe Glu Ser			
575	580	585	
tgt gtc tgt aaa ctg atg gct aac aaa act agg att ttg gtc act tct			1947
Cys Val Cys Lys Leu Met Ala Asn Lys Thr Arg Ile Leu Val Thr Ser			
590	595	600	605
aaa atg gaa cat tta aag aaa gct gac aaa ata tta att ttg aat gaa			1995
Lys Met Glu His Leu Lys Ala Asp Lys Ile Leu Ile Leu Asn Glu			
610	615	620	
ggc agc agc tat ttt tat ggg aca ttt tca gaa ctc caa aat cta cag			2043
Gly Ser Ser Tyr Phe Tyr Gly Thr Phe Ser Glu Leu Gln Asn Leu Gln			
625	630	635	
cca gac ttt agc tca aaa ctc atg gga tgt gat tct ttc gac caa ttt			2091
Pro Asp Phe Ser Ser Lys Leu Met Gly Cys Asp Ser Phe Asp Gln Phe			
640	645	650	
agt gca gaa aga aga aat tca atc cta act gag acc tta cac cgt ttc			2139
Ser Ala Glu Arg Arg Asn Ser Ile Leu Thr Glu Thr Leu His Arg Phe			
655	660	665	
tca tta gaa gga gat gct cct gtc tcc tgg aca gaa aca aaa aaa caa			2187
Ser Leu Glu Gly Asp Ala Pro Val Ser Trp Thr Glu Thr Lys Lys Gln			
670	675	680	685
tct ttt aaa cag act gga gag ttt ggg gaa aaa agg aag aat tct att			2235
Ser Phe Lys Gln Thr Gly Glu Phe Gly Lys Arg Lys Asn Ser Ile			
690	695	700	
ctc aat cca atc aac tct ata cga aaa ttt tcc att gtg caa aag act			2283
Leu Asn Pro Ile Asn Ser Ile Arg Lys Phe Ser Ile Val Gln Lys Thr			
705	710	715	
ccc tta caa atg aat ggc atc gaa gag gat tct gat gag cct tta gag			2331
Pro Leu Gln Met Asn Gly Ile Glu Glu Asp Ser Asp Glu Pro Leu Glu			
720	725	730	
aga agg ctg tcc tta gta cca gat tct gag cag gga gag gcg ata ctg			2379
Arg Arg Leu Ser Leu Val Pro Asp Ser Glu Gln Gly Glu Ala Ile Leu			
735	740	745	
cct cgc atc agc gtg atc agc act ggc ccc acg ctt cag gca cga agg			2427
Pro Arg Ile Ser Val Ile Ser Thr Gly Pro Thr Leu Gln Ala Arg Arg			
750	755	760	765
agg cag tct gtc ctg aac ctg atg aca cac tca gtt aac caa ggt cag			2475
Arg Gln Ser Val Leu Asn Leu Met Thr His Ser Val Asn Gln Gly Gln			
770	775	780	
aac att cac cga aag aca aca gca tcc aca cga aaa gtg tca ctg gcc			2523
Asn Ile His Arg Lys Thr Thr Ala Ser Thr Arg Lys Val Ser Leu Ala			
785	790	795	
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Pro Gln Ala Asn Leu Thr Glu Leu Asp Ile Tyr Ser Arg Arg Leu Ser			
800	805	810	

caa gaa act ggc ttg gaa ata agt gaa gaa att aac gaa gaa gac tta Gln Glu Thr Gly Leu Glu Ile Ser Glu Glu Ile Asn Glu Glu Asp Leu 815 820 825	2619
aag gag tgc ctt ttt gat gat atg gag agc ata cca gca gtg act aca Lys Glu Cys Leu Phe Asp Asp Met Glu Ser Ile Pro Ala Val Thr Thr 830 835 840 845	2667
tgg aac aca tac ctt cga tat att act gtc cac aag agc tta att ttt Trp Asn Thr Tyr Leu Arg Tyr Ile Thr Val His Lys Ser Leu Ile Phe 850 855 860	2715
gtg cta att tgg tgc tta gta att ttt ctg gca gag gtg gct gct tct Val Leu Ile Trp Cys Leu Val Ile Phe Leu Ala Glu Val Ala Ala Ser 865 870 875	2763
ttg gtt gtg ctg tgg ctc ctt gga aac act cct ctt caa gac aaa ggg Leu Val Val Leu Trp Leu Leu Gly Asn Thr Pro Leu Gln Asp Lys Gly 880 885 890	2811
aat agt act cat agt aga aat aac agc tat gca gtg att atc acc agc Asn Ser Thr His Ser Arg Asn Ser Tyr Ala Val Ile Ile Thr Ser 895 900 905	2859
acc agt tcg tat tat gtg ttt tac att tac gtg gga gta gcc gac act Thr Ser Ser Tyr Tyr Val Phe Tyr Ile Tyr Val Gly Val Ala Asp Thr 910 915 920 925	2907
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atc aca gtg tcg aaa att tta cac cac aaa atg tta cat tct gtt ctt Ile Thr Val Ser Lys Ile Leu His His Lys Met Leu His Ser Val Leu 945 950 955	3003
caa gca cct atg tca acc ctc aac acg ttg aaa gca ggt ggg att ctt Gln Ala Pro Met Ser Thr Leu Asn Thr Leu Lys Ala Gly Gly Ile Leu 960 965 970	3051
aat aga ttc tcc aaa gat ata gca att ttg gat gac ctt ctg cct ctt Asn Arg Phe Ser Lys Asp Ile Ala Ile Leu Asp Asp Leu Leu Pro Leu 975 980 985	3099
acc ata ttt gac ttc atc cag ttg tta tta att gtg att gga gct ata Thr Ile Phe Asp Phe Ile Gln Leu Leu Leu Ile Val Ile Gly Ala Ile 990 995 1000 1005	3147
gca gtt gtc gca gtt tta caa ccc tac atc ttt gtt gca aca gtg cca Ala Val Val Ala Val Leu Gln Pro Tyr Ile Phe Val Ala Thr Val Pro 1010 1015 1020	3195
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cag caa ctc aaa caa ctg gaa tct gaa ggc agg agt cca att ttc act Gln Gln Leu Lys Gln Leu Glu Ser Glu Gly Arg Ser Pro Ile Phe Thr 1040 1045 1050	3291

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His Leu Val Thr Ser Leu Lys Gly Leu Trp Thr Leu Arg Ala Phe Gly	
1055 1060 1065	
cgg cag cct tac ttt gaa act ctg ttc cac aaa gct ctg aat tta cat	3387
Arg Gln Pro Tyr Phe Glu Thr Leu Phe His Lys Ala Leu Asn Leu His	
070 1075 1080 1085	
act gcc aac tgg ttc ttg tac ctg tca aca ctg cgc tgg ttc caa atg	3435
Thr Ala Asn Trp Phe Leu Tyr Leu Ser Thr Leu Arg Trp Phe Gln Met	
1090 1095 1100	
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Arg Ile Glu Met Ile Phe Val Ile Phe Phe Ile Ala Val Thr Phe Ile	
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Ser Ile Leu Thr Thr Gly Glu Gly Arg Val Gly Ile Ile Leu	
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act tta gcc atg aat atc atg agt aca ttg cag tgg gct gta aac tcc	3579
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Ser Ile Asp Val Asp Ser Leu Met Arg Ser Val Ser Arg Val Phe Lys	
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Val Lys Lys Asp Asp Ile Trp Pro Ser Gly Gly Gln Met Thr Val Lys	
1200 1205 1210	
gat ctc aca gca aaa tac aca gaa ggt gga aat gcc ata tta gag aac	3819
Asp Leu Thr Ala Lys Tyr Thr Glu Gly Gly Asn Ala Ile Leu Glu Asn	
1215 1220 1225	
att tcc ttc tca ata agt cct ggc cag agg gtg ggc ctc ttg gga aga	3867
Ile Ser Phe Ser Ile Ser Pro Gly Gln Arg Val Gly Leu Leu Gly Arg	
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310	1315	1320	1325
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						20			25						30
Glu	Leu	Ser	Asp	Ile	Tyr	Gln	Ile	Pro	Ser	Val	Asp	Ser	Ala	Asp	Asn
						35			40						45
Leu	Ser	Glu	Lys	Leu	Glu	Arg	Glu	Trp	Asp	Arg	Glu	Leu	Ala	Ser	Lys
						50			55						60
Lys	Asn	Pro	Lys	Leu	Ile	Asn	Ala	Leu	Arg	Arg	Cys	Phe	Phe	Trp	Arg
						65			70						80
Phe	Met	Phe	Tyr	Gly	Ile	Phe	Leu	Tyr	Leu	Gly	Glu	Val	Thr	Lys	Ala
						85			90						95
Val	Gln	Pro	Leu	Leu	Leu	Gly	Arg	Ile	Ile	Ala	Ser	Tyr	Asp	Pro	Asp
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Asn	Lys	Glu	Glu	Arg	Ser	Ile	Ala	Ile	Tyr	Leu	Gly	Ile	Gly	Leu	Cys
						115			120						125
Leu	Leu	Phe	Ile	Val	Arg	Thr	Leu	Leu	Leu	His	Pro	Ala	Ile	Phe	Gly
						130			135						140
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						145			150						160
Tyr	Lys	Lys	Thr	Leu	Lys	Leu	Ser	Ser	Arg	Val	Leu	Asp	Lys	Ile	Ser
						165			170						175
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						180			185						190
Glu	Gly	Leu	Ala	Leu	Ala	His	Phe	Val	Trp	Ile	Ala	Pro	Leu	Gln	Val
						195			200						205
Ala	Leu	Leu	Met	Gly	Leu	Ile	Trp	Glu	Leu	Leu	Gln	Ala	Ser	Ala	Phe
						210			215						220
Cys	Gly	Leu	Gly	Phe	Leu	Ile	Val	Leu	Ala	Leu	Phe	Gln	Ala	Gly	Leu
						225			230						240
Gly	Arg	Met	Met	Met	Lys	Tyr	Arg	Asp	Gln	Arg	Ala	Gly	Lys	Ile	Ser
						245			250						255
Glu	Arg	Leu	Val	Ile	Thr	Ser	Glu	Met	Ile	Glu	Asn	Ile	Gln	Ser	Val
						260			265						270
Lys	Ala	Tyr	Cys	Trp	Glu	Glu	Ala	Met	Glu	Lys	Met	Ile	Glu	Asn	Leu

275	280	285
Arg Gln Thr Glu Leu Lys Leu Thr Arg Lys Ala Ala Tyr Val Arg Tyr		
290	295	300
Phe Asn Ser Ser Ala Phe Phe Ser Gly Phe Phe Val Val Phe Leu		
305	310	315
Ser Val Leu Pro Tyr Ala Leu Ile Lys Gly Ile Ile Leu Arg Lys Ile		
325	330	335
Phe Thr Thr Ile Ser Phe Cys Ile Val Leu Arg Met Ala Val Thr Arg		
340	345	350
Gln Phe Pro Trp Ala Val Gln Thr Trp Tyr Asp Ser Leu Gly Ala Ile		
355	360	365
Asn Lys Ile Gln Asp Phe Leu Gln Lys Gln Glu Tyr Lys Thr Leu Glu		
370	375	380
Tyr Asn Leu Thr Thr Glu Val Val Met Glu Asn Val Thr Ala Phe		
385	390	395
Trp Glu Glu Gly Phe Gly Glu Leu Phe Glu Lys Ala Lys Gln Asn Asn		
405	410	415
Asn Asn Arg Lys Thr Ser Asn Gly Asp Asp Ser Leu Phe Phe Ser Asn		
420	425	430
Phe Ser Leu Leu Gly Thr Pro Val Leu Lys Asp Ile Asn Phe Lys Ile		
435	440	445
Glu Arg Gly Gln Leu Leu Ala Val Ala Gly Ser Thr Gly Ala Gly Lys		
450	455	460
Thr Ser Leu Leu Met Met Ile Met Gly Glu Leu Glu Pro Ser Glu Gly		
465	470	475
Lys Ile Lys His Ser Gly Arg Ile Ser Phe Cys Ser Gln Phe Ser Trp		
485	490	495
Ile Met Pro Gly Thr Ile Lys Glu Asn Ile Ile Phe Gly Val Ser Tyr		
500	505	510
Asp Glu Tyr Arg Tyr Arg Ser Val Ile Lys Ala Cys Gln Leu Glu Glu		
515	520	525
Asp Ile Ser Lys Phe Ala Glu Lys Asp Asn Ile Val Leu Gly Glu Gly		
530	535	540
Gly Ile Thr Leu Ser Gly Gly Gln Arg Ala Arg Ile Ser Leu Ala Arg		
545	550	555
Ala Val Tyr Lys Asp Ala Asp Leu Tyr Leu Leu Asp Ser Pro Phe Gly		
565	570	575
Tyr Leu Asp Val Leu Thr Glu Lys Glu Ile Phe Glu Ser Cys Val Cys		
580	585	590
Lys Leu Met Ala Asn Lys Thr Arg Ile Leu Val Thr Ser Lys Met Glu		
595	600	605
His Leu Lys Lys Ala Asp Lys Ile Leu Ile Leu Asn Glu Gly Ser Ser		
610	615	620
Tyr Phe Tyr Gly Thr Phe Ser Glu Leu Gln Asn Leu Gln Pro Asp Phe		
625	630	635
Ser Ser Lys Leu Met Gly Cys Asp Ser Phe Asp Gln Phe Ser Ala Glu		
645	650	655
Arg Arg Asn Ser Ile Leu Thr Glu Thr Leu His Arg Phe Ser Leu Glu		
660	665	670
Gly Asp Ala Pro Val Ser Trp Thr Glu Thr Lys Lys Gln Ser Phe Lys		
675	680	685
Gln Thr Gly Glu Phe Gly Glu Lys Arg Lys Asn Ser Ile Leu Asn Pro		
690	695	700
Ile Asn Ser Ile Arg Lys Phe Ser Ile Val Gln Lys Thr Pro Leu Gln		
705	710	715
Met Asn Gly Ile Glu Glu Asp Ser Asp Glu Pro Leu Glu Arg Arg Leu		
725	730	735
Ser Leu Val Pro Asp Ser Glu Gln Gly Glu Ala Ile Leu Pro Arg Ile		
740	745	750

Ser Val Ile Ser Thr Gly Pro Thr Leu Gln Ala Arg Arg Arg Gln Ser  
 755 760 765  
 Val Leu Asn Leu Met Thr His Ser Val Asn Gln Gly Gln Asn Ile His  
 770 775 780  
 Arg Lys Thr Thr Ala Ser Thr Arg Lys Val Ser Leu Ala Pro Gln Ala  
 785 790 795 800  
 Asn Leu Thr Glu Leu Asp Ile Tyr Ser Arg Arg Leu Ser Gln Glu Thr  
 805 810 815  
 Gly Leu Glu Ile Ser Glu Glu Ile Asn Glu Glu Asp Leu Lys Glu Cys  
 820 825 830  
 Leu Phe Asp Asp Met Glu Ser Ile Pro Ala Val Thr Thr Trp Asn Thr  
 835 840 845  
 Tyr Leu Arg Tyr Ile Thr Val His Lys Ser Leu Ile Phe Val Leu Ile  
 850 855 860  
 Trp Cys Leu Val Ile Phe Leu Ala Glu Val Ala Ala Ser Leu Val Val  
 865 870 875 880  
 Leu Trp Leu Leu Gly Asn Thr Pro Leu Gln Asp Lys Gly Asn Ser Thr  
 885 890 895  
 His Ser Arg Asn Asn Ser Tyr Ala Val Ile Ile Thr Ser Thr Ser Ser  
 900 905 910  
 Tyr Tyr Val Phe Tyr Ile Tyr Val Gly Val Ala Asp Thr Leu Leu Ala  
 915 920 925  
 Met Gly Phe Phe Arg Gly Leu Pro Leu Val His Thr Leu Ile Thr Val  
 930 935 940  
 Ser Lys Ile Leu His His Lys Met Leu His Ser Val Leu Gln Ala Pro  
 945 950 955 960  
 Met Ser Thr Leu Asn Thr Leu Lys Ala Gly Gly Ile Leu Asn Arg Phe  
 965 970 975  
 Ser Lys Asp Ile Ala Ile Leu Asp Asp Leu Leu Pro Leu Thr Ile Phe  
 980 985 990  
 Asp Phe Ile Gln Leu Leu Ile Val Ile Gly Ala Ile Ala Val Val  
 995 1000 1005  
 Ala Val Leu Gln Pro Tyr Ile Phe Val Ala Thr Val Pro Val Ile Val  
 1010 1015 1020  
 Ala Phe Ile Met Leu Arg Ala Tyr Phe Leu Gln Thr Ser Gln Gln Leu  
 1025 1030 1035 104  
 Lys Gln Leu Glu Ser Glu Gly Arg Ser Pro Ile Phe Thr His Leu Val  
 1045 1050 1055  
 Thr Ser Leu Lys Gly Leu Trp Thr Leu Arg Ala Phe Gly Arg Gln Pro  
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 Tyr Phe Glu Thr Leu Phe His Lys Ala Leu Asn Leu His Thr Ala Asn  
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 1090 1095 1100  
 Met Ile Phe Val Ile Phe Ile Ala Val Thr Phe Ile Ser Ile Leu  
 1105 1110 1115 112  
 Thr Thr Gly Glu Gly Glu Gly Arg Val Gly Ile Ile Leu Thr Leu Ala  
 1125 1130 1135  
 Met Asn Ile Met Ser Thr Leu Gln Trp Ala Val Asn Ser Ser Ile Asp  
 1140 1145 1150  
 Val Asp Ser Leu Met Arg Ser Val Ser Arg Val Phe Lys Phe Ile Asp  
 1155 1160 1165  
 Met Pro Thr Glu Gly Lys Pro Thr Lys Ser Thr Lys Pro Tyr Lys Asn  
 1170 1175 1180  
 Gly Gln Leu Ser Lys Val Met Ile Ile Glu Asn Ser His Val Lys Lys  
 1185 1190 1195 120  
 Asp Asp Ile Trp Pro Ser Gly Gly Gln Met Thr Val Lys Asp Leu Thr  
 1205 1210 1215  
 Ala Lys Tyr Thr Glu Gly Gly Asn Ala Ile Leu Glu Asn Ile Ser Phe

1220	1225	1230	
Ser Ile Ser Pro Gly Gln Arg Val	Gly Leu Leu Gly Arg Thr Gly Ser		
1235	1240	1245	
Gly Lys Ser Thr Leu Leu Ser Ala Phe	Leu Arg Leu Leu Asn Thr Glu		
1250	1255	1260	
Gly Glu Ile Gln Ile Asp Gly Val Ser Trp	Asp Ser Ile Thr Leu Gln		
1265	1270	1275	128
Gln Trp Arg Lys Ala Phe Gly Val Ile	Pro Gln Lys Val Phe Ile Phe		
1285	1290	1295	
Ser Gly Thr Phe Arg Lys Asn Leu	Asp Pro Tyr Glu Gln Trp Ser Asp		
1300	1305	1310	
Gln Glu Ile Trp Lys Val Ala Asp Glu Val	Gly Leu Arg Ser Val Ile		
1315	1320	1325	
Glu Gln Phe Pro Gly Lys Leu Asp Phe Val	Leu Val Asp Gly Gly Cys		
1330	1335	1340	
Val Leu Ser His Gly His Lys Gln Leu	Met Cys Leu Ala Arg Ser Val		
1345	1350	1355	136
Leu Ser Lys Ala Lys Ile Leu Leu Asp	Glu Pro Ser Ala His Leu		
1365	1370	1375	
Asp Pro Val Thr Tyr Gln Ile Ile Arg Arg	Thr Leu Lys Gln Ala Phe		
1380	1385	1390	
Ala Asp Cys Thr Val Ile Leu Cys Glu His	Arg Ile Glu Ala Met Leu		
1395	1400	1405	
Glu Cys Gln Gln Phe Leu Val Ile	Glu Glu Asn Lys Val Arg Gln Tyr		
1410	1415	1420	
Asp Ser Ile Gln Lys Leu Leu Asn Glu Arg	Ser Leu Phe Arg Gln Ala		
1425	1430	1435	144
Ile Ser Pro Ser Asp Arg Val Lys Leu	Phe Pro His Arg Asn Ser Ser		
1445	1450	1455	
Lys Cys Lys Ser Lys Pro Gln Ile Ala	Ala Leu Lys Glu Glu Thr Glu		
1460	1465	1470	
Glu Glu Val Gln Asp Thr Arg Leu			
1475	1480		

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 <212> PRT  
 <213> Homo Sapiens

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 1 5 10 15

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 <211> 31  
 <212> PRT  
 <213> Homo Sapiens

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 Leu Trp Leu Leu Gly Asn Thr Pro Leu Gln Asp Lys Gly Asn Ser Thr  
 1 5 10 15  
 His Ser Arg Asn Asn Ser Tyr Ala Val Ile Ile Thr Ser Thr Ser  
 20 25 30